

CLAIMS

1. A process for removing an oil-in-water emulsion from waste water that results from the production of a water-based product, said process comprising the following steps:

- a) collect the emulsion waste water in a container,
- b) add a quantity of a precipitation reagent with trivalent cations,
- c) add a quantity of a base compound to adjust the pH of the waste water to approximately 6.5, which converts the trivalent cations to a gelatinous cation hydroxide precipitation and separates the emulsion from the waste water, and
- d) separate the precipitation from the waste water by utilizing a filtration means.

2. The process as specified in claim 1 wherein said emulsion is comprised of positively or negatively charged colloids, such as pharmaceutical drugs and dairy products.

3. The process as specified in claim 1 wherein said quantity of a precipitation reagent is comprised of a trivalent compound.

4. The process as specified in claim 3 wherein said trivalent compound is comprised of potassium aluminum sulfate.

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5. The process as specified in claim 3 wherein said trivalent compound is comprised of aluminum chloride.

6. The process as specified in claim 3 wherein said trivalent compound is comprised of ferric chloride.

7. The process as specified in claim 1 wherein said base compound is comprised of sodium bicarbonate.

8. The process as specified in claim 1 wherein said base compound is comprised of sodium carbonate.

9. The process as specified in claim 1 wherein said base compound is comprised of ammonia.

10. The process as specified in claim 1 wherein said base compound is comprised of sodium hydroxide.

11. The process as specified in claim 1 wherein said filtration means is comprised of vacuum filtration.

12. The process as specified in claim 1 wherein said filtration means is comprised of positive pressure filtration.

13. The process as specified in claim 1 wherein said filtration means is comprised of a centrifuge.

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